

TCP Connection Establishment and Release



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TCP – Connection Establishment

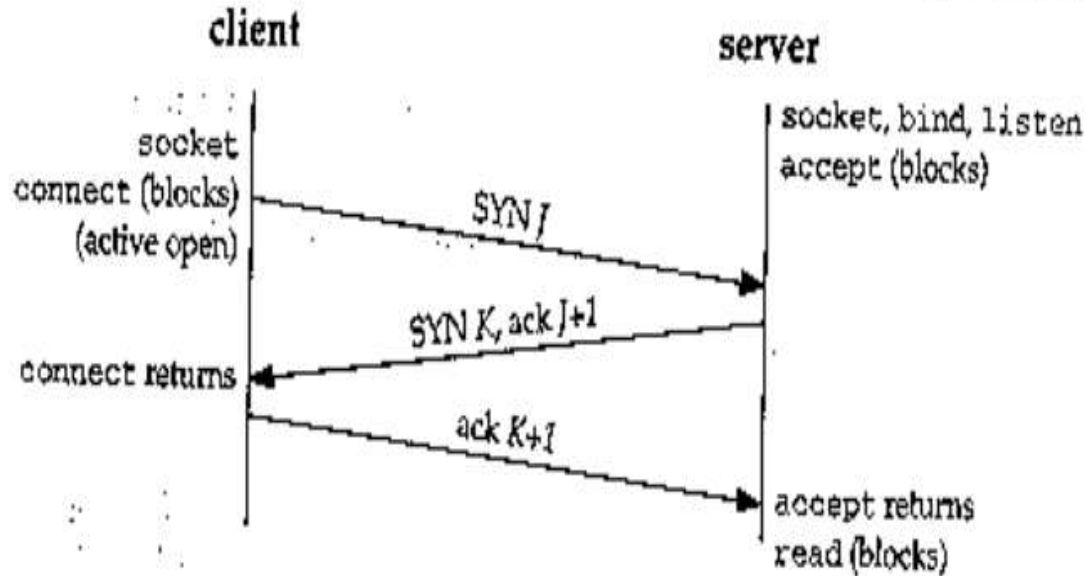


Figure 2.2 TCP three-way handshake.

TCP – Connection Termination

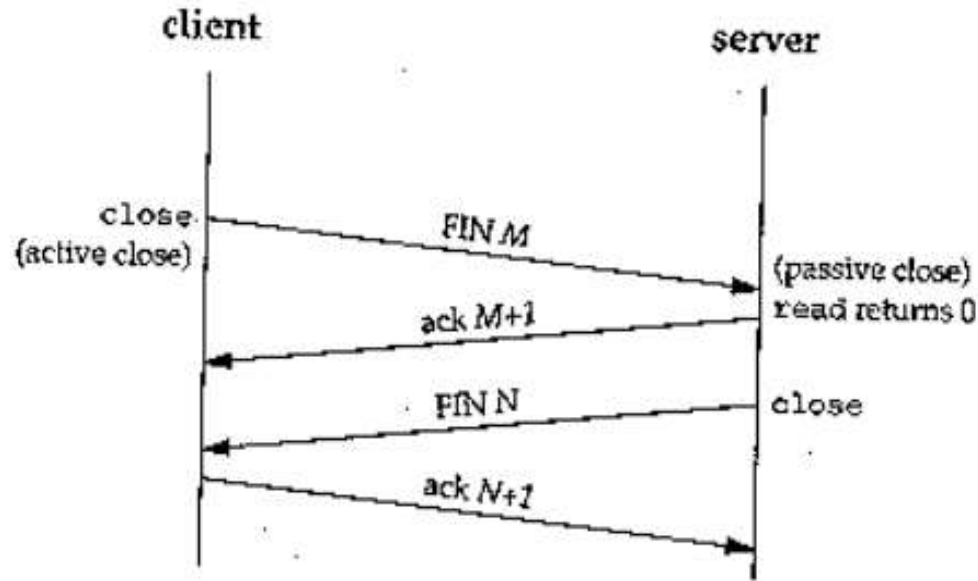


Figure 2.3 Packets exchanged when a TCP connection is closed.

TCP – TCP Client States

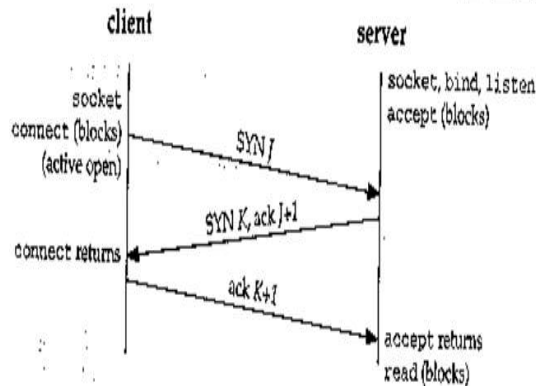


Figure 2.2 TCP three-way handshake.

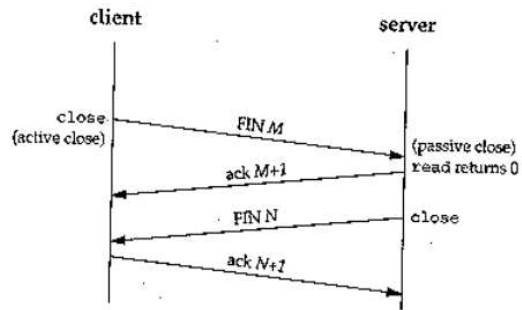
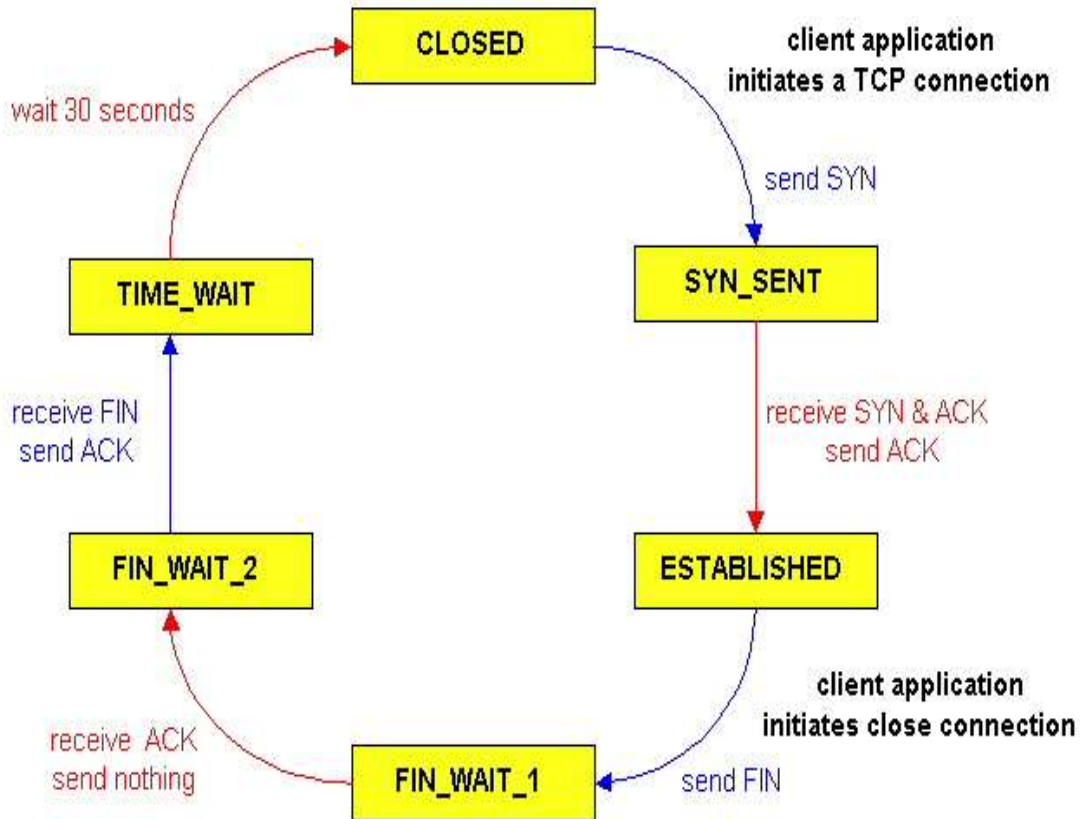


Figure 2.3 Packets exchanged when a TCP connection is closed.



TCP – TCP Server States

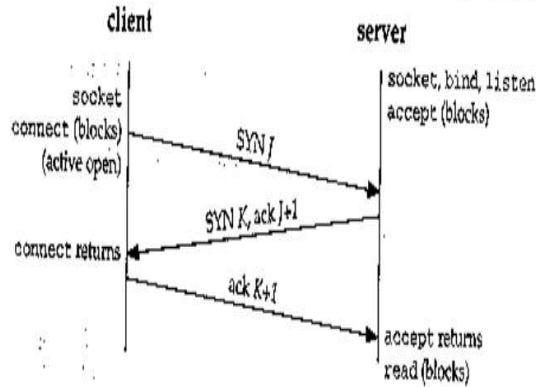


Figure 2.2 TCP three-way handshake.

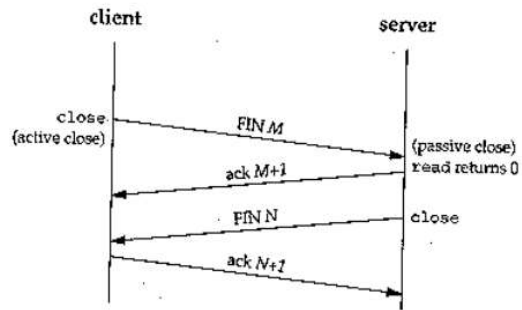
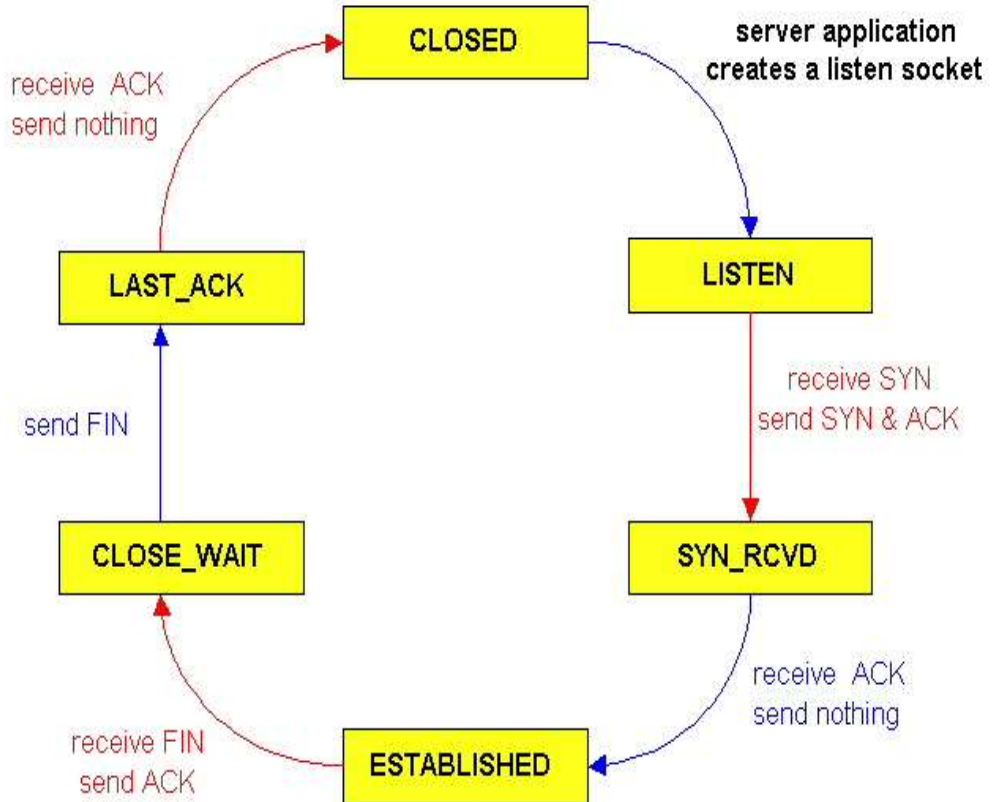


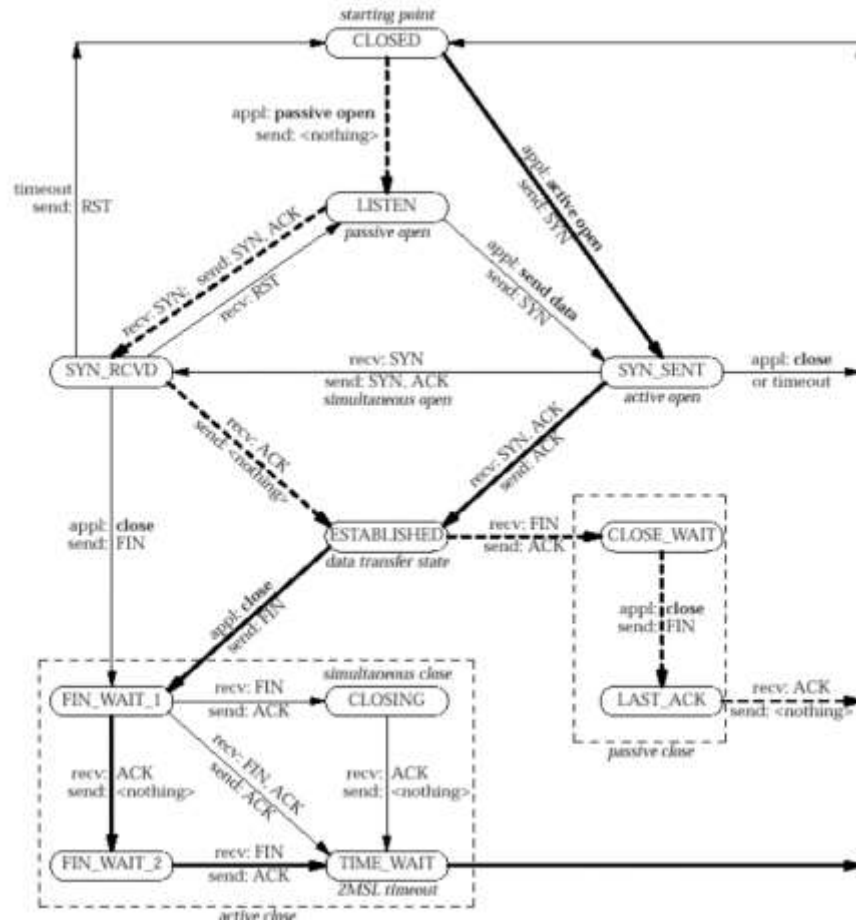
Figure 2.3 Packets exchanged when a TCP connection is closed.



TCP – Client / Server States

State	Description
CLOSED	There is no connection.
LISTEN	The server is waiting for calls from the client.
SYN-SENT	A connection request is sent; waiting for acknowledgment.
SYN-RCVD	A connection request is received.
ESTABLISHED	Connection is established.
FIN-WAIT-1	The application has requested the closing of the connection.
FIN-WAIT-2	The other side has accepted the closing of the connection.
TIME-WAIT	Waiting for retransmitted segments to die.
CLOSE-WAIT	The server is waiting for the application to close.
LAST-ACK	The server is waiting for the last acknowledgment.

TCP – Client / Server States



References

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- ✓ Computer Networks, Andrew S. Tanenbaum, 4th edition, PHI
- ✓ Data Communication and Networks, Achyut Godbole, 2007, TMH.
- ✓ Computer Networks: Protocols, Standards, and Interfaces, Uyles Black, 2nd ed, PHI
- ✓ Various relevant websites

Thank You